



# LMP 307

## **Stainless Steel Probe**

**Stainless Steel Sensor** 

accuracy according to EN IEC 62828-2: standard: 0.35 % span option: 0.25 % span

#### Nominal pressure

from 0 ... 1 mH<sub>2</sub>O up to 0 ... 250 mH<sub>2</sub>O

#### **Output signals**

2-wire: 4 ... 20 mA 3-wire: 0 ... 20 mA / 0 ... 10 V others on request

#### Special characteristics

- diameter 27 mm
- small thermal effect
- excellent accuracy
- excellent long term stability

#### **Optional versions**

IS-version

Ex ia= intrinsically safe for gas

and dust

- SIL 2 (Safety Integrity Level)
- Drinking water certificate acc. to DVGW and KTW
- different kinds of cables
- different kinds of seal materials

The stainless steel probe LMP 307 is designed for continuous level measurement in water and clean or waste fluids.

Basic element is a high quality stainless steel sensor with high requirements for exact measurement with excellent long term stability.

#### Preferred areas of use are



<u>Water / filtrated sewage</u> drinking water system ground water level measurement rain spillway basin pump and booster stations water treatment plants water recycling



<u>Fuel / Oil</u> fuel storage tank farm





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The company BD SENSORS s.r.o. is certified by Bureau Veritas Czech according to the standard ISO 9001.

### LMP 307 Stainless Steel Probe

Input pressure range	e [heu]	0.1	0.40	0.05	0.4	0.0	4	1.0	25	4	6	10	10	05
Nominal pressure gauge	e [bar] [mH <sub>2</sub> O]	0.1	0.16	0.25 2.5	0.4	0.6	1 10	1.6 16	2.5 25	4 40	6 60	10	16 160	25 250
Overpressure	[hii 120] [bar]	0.5	1.0	2.5	2	5	5	10	10	20	40	40	80	80
Burst pressure >	[bar]	1.5	1.5	1.5	3	7.5	7.5	15	15	25	50	50	120	120
max. ambient pressure		40 bar		1.0	0	1.0	1.0	10	10	20	00	00	120	120
· · ·		1												
Output signal / Supply		2 wire:	. 1	20 m 4	/ /	/ _ 0	22.1/		51	Lyoroic		14 20	2 \/	
Standard		2-wire:		20 mA		$V_{\rm S} = 8$ .		-				14 28		
Option Ex-protection		2-wire:		20 mA		/ <sub>s</sub> = 10 .		-				14 28		
Option Accuracy 0.1 %	span	2-wire:		20 mA		/ <sub>s</sub> = 12 .							14 30	$V_{DC}$
Options 3-wire		3-wire:	0.	20 mA	<u> </u>	/ <sub>s</sub> = 14 .	30 V <sub>D</sub>	2	0	10 V	/ V <sub>s</sub>	= 14 :	30 V <sub>DC</sub>	
Performance														
Accuracy		standa	no	ominal p ominal p	ressure	e ≥ 0.4 ba	ar:	≤±	0.5 % sp 0.35 % s 0.25 % s	pan				
Permissible load		option 1:nominal pressure $\geq 0.4$ bar: $\leq \pm 0.25$ % spancurrent 2-wire: $R_{max} = [(V_s - V_s min) / 0.02 A] \Omega$ current 3-wire: $R_{max} = 500 \Omega$ voltage 3-wire: $R_{min} = 10 k\Omega$												
Influence effects		supply				an / 10 \	1	load			pan / k			
Long term stability				n / year a				louu	. 0			-		
Response time			/0 spai < 10				3-wir	e. <	3 msec					
<sup>1</sup> accuracy according to EN	LIEC 62828 2				n_linearit	ty hyster								
			nn aujust		- III Call	y, nysteri	5313, Tepe	atability)						
Thermal effects (Offse	•	,			0.40						>0.4	0		
Nominal pressure P <sub>N</sub>	[bar]				0.40						<u>&gt;</u> 0.4			
Tolerance band	[% span]			1	≦±1			0 -			≤±0.	15		
in compensated range	[°C]							0 70						
Permissible temperatu	ures													
Permissible temperature		1		ronics/ e			0							
*If the cable is intended for		ller tempe	erature ra	nge, the	use of th	e probe i	s limited l	by this ra	nge.					
Electrical protection <sup>2</sup>														
Short-circuit protection														
		perma	nent											
Reverse polarity protect	tion			ut also n	o functi	on								
Electromagnetic compa	itibility	no dan emissi	nage, bi on and i	mmunity	/ accord	ding to E								
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LMP 307 Stainless Steel Probe



Mounting flange with c	cable gland		
Technical data			
Suitable for	all probes	cable gland M16x1.5 with seal insert (for cable-∅ 4 11 mm)	
Flange material	stainless steel 1.4404 (316L)		
Material of cable gland	standard: brass, nickel plated on request: stainless steel 1.4305 (303		
Seal insert	on request: stainless steel 1.4305 (303) material: TPE (ingress protection IP 68)	b), plastic	- n x d2 -
Hole pattern	according to DIN 2507		
Version	Size (in mm)	Weight	
DN25 / PN40	D = 115, k = 85, b = 18, n = 4, d = 14	1.4 kg	
DN50 / PN40	D = 165, k = 125, b = 20, n = 4, d = 18	3.2 kg	
DN80 / PN16	D = 200, k = 160, b = 20, n = 8, d = 18	4.8 kg	
Ordering type	D = 200, K = 100, B = 20, H = 0, G = 10	Ordering code	
	gland brass, nickel plated	5000275	
	gland brass, nickel plated	5000275	
	gland brass, nickel plated	5000278	
Terminal clamp		3000279	
Technical data			
Suitable for	all probes with cable Ø 5.5 10.5 mm		
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)		
Weight	approx. 160 g		
Ordering type		Ordering code	
Terminal clamp, steel, zi	•	1003440	
Terminal clamp, stainles	s steel 1.4301 (304)	1000278	
Display program			
<b>CIT 200</b> Process display with LE	D display		
CIT 250 Process display with LE CIT 300			
Process display with LE	D display, contacts and analogue output		
CIT 350	D display, bargraph, contacts and analogu	e output	
CIT 400	D display, contacts, analogue output and E		
CIT 600 Multichannel process dis	splay with graphics-capable LC display		E YEB
CIT 650	splay with graphics-capable LC display and	l datalogger	2799.9 14.58
CIT 700	splay with graphics-capable TFT monitor, t		
<b>PA 440</b> Field display with 4-digit	LC display		35.65 m
For further information p	lease contact our sales department or visit	our	

homepage: http://www.bdsensors.com



	Ord	ering code	LMF	9 307											
23.08.2024	LMP 307				]_[	]_[]	-	_[		]_[	]_[	Π	1-П		
Dressure													┥└╌┩		
Pressure in bar		4 5 0													
in m H <sub>2</sub> O		4 5 1													
Input [mH <sub>2</sub> O]	[bar]														
0 1	0 0,1		1	000											
0 1,6	0 0,16			600											
0 2,5				500											
04	00,4			0 0 0											
0 6 0 10	0 0,6 0 1			000											
0 16	01.6			6 0 1											
0 25	02,5			501											
0 40	0 4			0 0 1											
0 60	0 6			0 0 1											
	0 10			0 0 2											
	016			6 0 2											
	0 25		2	502											
Customer Housing material			9	999	1										
Stainless steel 1.4404 (3	16L)				1										
Diaphragm material	161)														
Stainless steel 1.4435 (3 Output	16 L)					1									
4 20 mA / 2-wire			_	_	-	_	1								
0 20 mA / 3-wire							2								
0 10 V / 3-wire <sup>4</sup>							3								
0 5 V / 3-wire <sup>4</sup>							4								
Intrinsic safety Ex ia 4							E								
SIL2, 4 20 mA / 2-win							1S								
SIL2, Intrinsic safety 4 Customer	20 mA / 2-wire						ES 9								
Seals							3								
Viton (FKM)			_	_	_	_	_	1							
EPDM (drinking water) <sup>1</sup>								3							
Customer								9							
Accuracy															
0,5 % (P <sub>N</sub> ≤ 0,4 bar)									5						
0,35 % (P <sub>N</sub> > 0,4 bar)									3						
0,25 % (P <sub>N</sub> > 0,4 bar)									2						
	on Certificate ( $P_N \le 0.4$ bar)								T						
0,35 % Including Calibrat	tion Certificate ( $P_N > 0.4$ bar)								S						
Electrical connection <sup>3</sup>									9	1					
PVC - cable (grey, Ø 7,4	mm, price for 1 m)									1					
PUR - cable (black, Ø 7,4										2					
	heath (black, Ø 7,4 mm, price for 1 m)									3					
-	°C (blue, Ø 7.4 mm, price for 1 m)									4					
Customer										9					
Cable length in m											Q	99			
Special version											3	1010			
Standard														0 0	
	orrugated hose (max 20 m)												1	03	
+ stainless steel hose / 1															
Version with temperature													0	13	
	0 30 VDC (only for output 0 5 V / 3-wir	ie)												2 Z	
	for mounting with stainless steel pipe													03	
Customer													9	99	

Accessories for submersible transmitter Terminal clamp - zinc plated

Terminal clamp - Stainless Steel 1.4301





1003440 1000278



5002200

0,- .. . without additional charge

On request ... in accordance with the producer Surcharges for calibration are not subject to any discounts. Subject to change. This document contains the specification for ordering the product; detailed technical parameters of the product and its possible variants are given in the data sheet

BD SENSORS reserves the right to change sensor specifications without further notice.

1 drinking water certification only possible with EPDM seal (code 3) in combination with PUR cable

2 not in combination with SIL

3 shielded cable with integrated ventilation tube for atmospheric pressure reference

4 maximum length of PVC cable - 25 m, PUR, FEP, TPE - 40 m



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